8.0 INTERNAL QUALITY CONTROL CHECKS

8.0.0.1. Internal quality control checks are used to evaluate whether method performance is within acceptable limits of precision and accuracy. The following sections describe the internal QC that shall be followed for both field and laboratory activities.

8.1 FIELD SAMPLE COLLECTION

8.1.0.1. Quality control samples are used to assess field sampling techniques and environmental conditions during sample collection and transportation and typically include (but are not limited to) field duplicates, trip blanks, ambient air blanks, source water blanks, and equipment blanks. Quality control sample requirements for field samples for both screening and definitive data are described in Table 3-6.

8.2 FIELD MEASUREMENTS

8.2.0.1. QC procedures for field measurements shall include checking the reproducibility of the measurements by obtaining multiple readings on a single grab sample (if practical) or back checking meter accuracy against a standard, calibrating the field instruments or equipment as discussed in SOP 2 and monitoring instrument calibration throughout each day of sampling.

8.3 LABORATORY ANALYSIS

8.3.0.1. The general objectives of the laboratory QC program are to:

- Ensure that all procedures are documented, including any changes in administrative and/or technical procedures.

- Ensure that all analytical procedures are validated and conducted according to method guidelines and laboratory SOPs.

- Monitor the performance of the laboratory using a systematic inspection program.

- Ensure that all data are properly reported and archived.

8.3.0.2. Contract laboratories shall conduct internal quality control checks for analytical methods in accordance with their SOPs, the individual method requirements, and this QAPP. The laboratory shall notify the Prime Contractor's Project Manager in writing before making significant changes to the project-specific work plans, this QAPP or analytical methodology.

8.3.0.3. Laboratory quality control consists of two distinct components, a laboratory component and a matrix component. The laboratory component measures the performance of the laboratory analytical process during sample analyses, while the matrix component measures the effects of a specific media on the method performance. The QC samples that shall be used to assess the laboratory component and the media component of analysis are listed in Tables 3-4 and 3-6. The criteria against which the QC data shall be evaluated are listed in the quality control criteria tables included in Appendices A through H. Corrective actions for instrument calibrations or out of compliance QC sample data are listed in the corrective action summary tables, and also are included in Appendices A through H.